REMARKS

Claims 1-7 are now present in the application. Claims 1 has been amended and claims 2-7 have been added. Claims 1-4, 7 and 8 are independent. Reconsideration of this application, as amended, is respectfully requested.

Status of the Drawings

In the Examiner's Office Action dated October 1, 2001, no indication as to the status of the drawings has been provided. As the Examiner will note, the present application was filed with twenty-two sheets of formal drawings. Accordingly, the Draftsperson should have reviewed the drawings for formal matters.

In view of the above, it is respectfully requested that the Examiner provide a Notice of Draftsperson's Patent Drawing Review, PTO-948 or indication as to the status of the drawings in the next Office Communication so that Applicants can make any necessary drawing corrections in a timely manner.

Rejection Under 35 U.S.C. § 112

Claim 1 stands rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. This rejection is respectfully traversed.

The Examiner asserts that claim 1 is indefinite and incomplete since the variables in the claim have not be properly defined. As the Examiner will note, independent claim 1 has been amended in order to define all variables in the claim. Accordingly, claim 1 is now definite and complete. Accordingly, reconsideration and withdrawal of the rejection under 35 U.S.C. § 112, second paragraph are respectfully requested.

Additional Claims

Additional claims 2-7 have also been added for the Examiner's consideration. Favorable consideration and allowance of additional claims 2-8 are respectfully requested.

Allowable Subject Matter

Claim 1 has been indicated by the Examiner as being allowable if amended to overcome the rejection under 35 U.S.C. § 112, second paragraph. Applicant greatly appreciates the indication of allowable subject matter by the Examiner. As mentioned above, claim 1 has been amended in order to overcome the Examiner's rejection under 35 U.S.C. § 112, second paragraph. Accordingly, independent claim 1 should now be in condition for allowance.

Conclusion

All the stated grounds of rejection have been properly traversed and/or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently pending rejections and that they be withdrawn.

It is believed that a full and complete response has been made to the Office Action, and that as such, the Examiner is respectfully requested to send the application to Issue.

In the event there are any matters remaining in this application, the Examiner is invited to contact Paul C. Lewis, Registration No. 43,368 at (703) 205-8000 in the Washington, D.C. area.

Attached hereto is a marked-up version of the changes made to the application by this Amendment.

Applicant respectfully petitions under the provisions of 37 C.F.R. § 1.136(a) and § 1.17 for a two-month extension of time in which to respond to the Examiner's Office Action. The Extension of Time Fee in the amount of **$200.00** is attached hereto.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By _____

JMS/PCL/cl

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Attachment: Version with Markings to Show Changes Made

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION

The paragraph beginning on page 18, line 16, has been amended as follows:

2) an angle **Aa** of the axis of internal bore 3 measured relative to a horizontal plane, with an inclined bore 3 have a positive angular [valve] value, a declining bore having a negative value and the value of Aa for a horizontal bore being "0";

The paragraph beginning on page 18, line 31, has been amended as follows:

When a ferrule is inclined, the bottom rear margin at point Pr rises up like a wall and becomes the high point of a barrier to free drainage from within the ferrule. In order to get beyond that barrier it is necessary to build a drainage trough 18 in the valve that, when installed in the valve 13 will provide an inlet at the process, the orifice 16, whose lower margin 20 forms the beginning of the trough 18 and which passes above or above and to the side of the bottom [rear] rearmost margin 8 of bore 3 down to an outlet [22] 21 beyond the confines of the ferrule, the beginning 20 of drainage trough [20] 18 at the base of orifice 16 being above the outlet 21 of the drainage trough [21] 18 and where the drainage trough 18 constructed within the valve body that continuously descends at an angle greater than the angle of inclination of the axis of the ferrule's internal bore 3 when the valve is installed in the ferrule. A horizontal plane can be imagined to

extend forward from point Pr wherein the [drain] <u>drainage</u> trough <u>18</u>, beginning at the lower margin 20 of orifice 16 and passing back, just over and then beyond point Pr, is always above [said] <u>the horizontal</u> plane but moving closer to it as the trough [descend] <u>descends</u> toward Pr, passing close but still above Pr and then beyond it to a point where it is free of the ferrule and can be drained out of the system. Thus, the [start] <u>beginning 20</u> of the drainage trough [20] <u>18</u> (which is coincident with the base of the orifice) and the <u>drainage</u> trough <u>18</u> all of the way back to a point just beyond point Pr must be above this imagined horizontal plane in order for the valve to freely drain process though <u>the</u> inclined bore 3 in ferrule 2 beyond the point Pr.

The paragraph beginning on page 19, line 24, has been amended as follows:

The vertical component, Div of Lf, is the diametric height lost in order to off set bore inclination. Div can be calculated anywhere along the bottom margin 56 of bore 3 by using the value of Lf at that point and <u>the</u> angle of inclination Aa of the internal bore 3. For a flush-mounting design, the full value of Lf would be used and the calculation would be as follows:

The paragraph beginning on page 20, line 1, has been amended as follows:

In order to actually achieve free drainage, it is necessary to [have] impart some minimum angle of declination to drainage trough 20 that is in excess of the offset to angle Aa created by the diametric loss Div. The determination of what is

a sufficient positive drain angle, Ab, is dependent on the process. The amount of diametric height necessary to create Ab in drainage trough 20 at any point along the bottom margin of bore 3 can be calculated by using the value of Lf at that point and Ab. For a flush mounted valve, the full value of Lf would be used:

The paragraph beginning on page 24, line 4, has been amended as follows:

In some large vessels equipped with relatively long steeply angled small diameter ferrules, it is not even possible to construct flush-mounting valve arrangements. In these cases the best that can be accomplished is to draw the position of the orifice back up into the ferrule internal bore to [appoint] a point where there is sufficient diametric height to accommodate all of the necessary valve structural elements, including a sufficiently large orifice and a steep enough slope for the drainage trough. This situation is less than optimal since positioning the orifice up inside a ferrule places it in a "quiet" zone which will tent to stray in character from the more highly mixed body proper of the process.

IN THE CLAIMS

The claim has been amended as follows:

1.   (AMENDED) A valve for insertion into a ferrule having a given internal diameter, the valve having a sample cavity, a sampling orifice and a drain outlet, the sampling orifice and drain outlet being operatively connected to

the sample cavity, a diameter of the sampling orifice being determined by the following formula:

Dov < or = Dfv - [(Dr1+Dr2) + (Dv1+Dv2) + (Dw1+Dw2) + (Ds1+Ds2) + Div + Ddv], wherein Dov is the diametric height for orifice construction, Dfv is the ferrule bore diametric height, Dr1 and Dr2 are the diametric spaces required to seal a body of the valve with a bore of the ferrule, Dv1 and Dv2 are the diametric spaces required to form upper and lower margins, respectively, of an annular wall of the valve body, Dw1 and Dw2 are the diametric spaces required to form an outer wall at the upper and lower margins of the valve body, respectively, Ds1 and Ds2 are the diametric spaces required to allow for an intersticial space between an inside diameter of the ferrule and an outside diameter of the valve body along the upper and lower margins of the valve body, respectively, Div is the diametric height lost due to an inclination of the bore, and Ddv is the diametric height to assure channel drainage.

Claim 2-7 have been added.